

## (TRANSLATION)

Japanese Laid-open Patent Publication (Kokai)  
No. Hei4-3731

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| Laid-open (Kokai) Date: | January 8, 1992                   |
| Title of Invention:     | Copy Cassette Supplying Equipment |
| Patent Application No.: | Hei2-105676                       |
| Date Filed:             | April 20, 1990                    |
| Inventors:              | Atsushi Shirashe, et al.          |
| Applicant:              | Fuji Film Corporation, Inc.       |

## SPECIFICATION

## 3. Detailed Explanation

## [Implemented example]

The text cassette supplying equipment related to this invention, the implemented example if raised and detailed explanation is made referring the attached drawings.

Fig. 1 shows the constitution of the text cassette supplying equipment 10. The text cassette supplying equipment 10 is surrounded by the casing 12, the cassette holding means 16 of the aforementioned cassette 14, the cassette inserting ports 56, 57 for supplying the aforementioned cassette holding main means 22 is arranged cassette supplying equipment 20. Here, the text cassette supplying means 22 which is supplying the picture image. The picture image read-out equipment 20 is provided. Cassette supplying equipment 22 that supplies the cassette supplying means 22 is provided.

Here the copy cassette supplying equipment 10, the copy cassette 14 supplied to the picture image read-out equipment 20 are constituted as shown in Fig. 2, namely the copy cassette 14 is the one which holds the transparent type read-out copy 28 between two holding glass plates 26 surrounded by the frame body 24, in the both-side part of the carrying direction (arrow mark X direction), the groove parts 30a, 30b of the v-letter type existing along the carrying direction is formed. And in the upper face part, the cassette discriminating part 29 which discriminates the read-out text 28 held in the copy cassette is arranged.

This cassette discriminating part 29 is constituted with the combination of the plural number of the transparent part 31 and the light shutting part 31 according to the read-out copy 28 held in the text cassette 14.

In Fig. 3, the picture image read-out equipment 20 is provided with the insertion detecting means 36 such as the photo interpreter etc. arranged near the communication port 34 formed in the casing 32, the cassette determining means 38, the carrying means 40 to carry in the picture image read-out equipment 20, and the picture image read-out part 42 are provided. The insertion detecting means 36 detects the copy cassette is detected that the text cassette 14 and the read-out text, the cassette determining means 38 to discriminates the read-out copy 28 held in the text cassette to discriminate for example the luminescent and the side part of the text cassette 14 is to carry from the communicating port 34 to of the light the light goes throughs the text cassette 14 by the light source 46 is received by the light receiving element 48, thereby the read-out of the picture image can be done.

Next the detailed explanation of the constitution for the supplying equipment 10 of the text cassette supplying equipment 10.

The casing 12 as shown in Fig. 4 comprises the first lid part 50 with upper and front part openable and the second lid part 52. In the outside prescribed position of the first lid part 50, the cassette inserting table 54 and the cassette inserting port 56 are arranged. In the inside of the first lid part corresponding to the aforementioned the cassette inserting port 56, photo interpratta, etc. and a couple of carry-in motor 60 and the inserting detecting means 58 such as the carry-in Thereby, the copy cassette 45 in the upper part of the cassette inserting port 56, usually the cassette inserting port 66 which is made closing condition by the door 64 is arranged, and in the first lid part which is corresponding to this cassette inserting port, and similar to the case aforementioned, the inserting detecting means 68 detecting the text cassette 14 is inserted and the carry-in roller 72 driven by the inserting detecting means 68 and the motor 70 is arranged.

In this case, the text cassette 14 can not only supply one by one by means of the inserting port 56 or 66, but supply the plural number of the text cassette 14 simultaneously by using the first lid part 50. Thereby the supplying time of the text cassette 14 can be shortened.

The cassette holding means 16 is made by the four guide bars 74a and 74d cage

76 is arranged standingly arranged in the casing 12. The case 76 as shown in Fig. 5 can be moved in the Z direction up/down direction by the chain 84 by means of the worm gear 82 connected to the driving shaft 80 of the motor 78. In the meantime, in the aforementioned driving shaft 80, the handle part material 85 is arranged that can be moved by the hand for the worm gear.

The cage 76 owns the plural number of the stage part 86 loaded with the text cassette 14, between each stage parts 86, the guide rollers of the plural number engaged to the groove parts 30a, 30b arranged in the side part of the aforementioned text cassette 14 in the prescribed gaps apart in between.

In the side part of the cage 76 in the position corresponding to the carry-in roller 60 arranged in the lower part of the first lid part 50, the cassette carrying mechanism 90A is arranged. The cassette carrying mechanism 90A as shown in Fig. 6 owns the motor 94A fixed to the supporting plate 92A and the solenoid 96A and the driving plate 98A fixed to the supporting plate 98A supported rotating freely to the aforementioned supporting plate 92A. The driving plate 98A is roughly L shape, the bent part is supported axially to the supporting plate 92A, in the one end connecting to the solenoid 96A by means of the connecting part 100A, and the other end part side of the driving plate 98A is in the shape of the comb, and in the top end part of the comb, the guide roller 102A is arranged. It is rotatable by means of the motor 94A, and under the driving function of the solenoid 96A the guide roller 98 between the stage parts 86 in the case 76 is constituted inserting freely.

In the meantime, the part opposing to the cassette inserting port 56 of the first lid part 50 a couple of the nipple roller 106 and the cassette discriminating means 18 is arranged with the aforementioned cage inbetween. In this case, the means of the cassette discriminating means 18 is constituted by the plural number of the illuminating element 108 and the light receiving element 110 which are opposingly positioned, and the data set in the discriminating part 29 of the copy cassette is read out thereby.

In the side part of the cage 76, in the position corresponding to the carry-in roller 72 arranged in the upper part of the first lid part 50, the cassette carrying mechanism 90B is arranged. In this case the cassette carrying mechanism 90B is similarly constituted in the same way with the aforementioned constitution, of the cassette carrying mechanism 90A, thereby the explanation is left out putting B to the referring number.

In the part opposing to the cassette inserting port 66 of the first lid part 50 as shown in Fig. 7, two sets of the nip rollers 112, 114 are arranged with the aforementioned cage 76 put inbetween. In this case the aforementioned nip rollers 112, 114 are driven by the fixed motor 118 fixed to the supporting plate 116.

The picture image read-out equipment 20 connected with this copy cassette supplying equipment 10 and the copy cassette supplying equipment 10 is basically constituted as above, and the function thereof is explained thereafter.

First, the explanation is made (refer to Fig. 1) for the case wherein the held as shown in Fig. 2 the read-out copy is inserted from the inserting port 56, the held cassette 14 is inserted from the cassette inserting port 56 of the copy cassette supplying equipment 10.

The copy cassette supplying equipment 10 detects that the copy cassette 14 is inserted by the cassette inserting detecting means 58, the carry-in roller 60 is made to rotate under the driving function of the motor 62, the copy cassette 14 is filled in the prescribed stage part 86 in the cassette holding means 16. In the meantime, cage 76 is positioned near the carry-in roller 60. The copy cassette 14 is held in the way in the aforementioned stage part 86 is positioned near t carry-in roller 60. The copy cassette 14 in the prescribed stage part 86 is held in the way the guide roller 88 is engaged to the groove parts 30a, 30b.

When the copy cassette 14 is carried in the prescribed position of the stage part 86, the cassette carrying mechanism 90A is driven. (refer to Fig. 5, Fig. 6) Namely when solenoid 96A is powered, by means of the connecting par 100A, the driving plate 98A rotates in the arrow mark A direction, the guide roller 102 is inserted in the stage part 86 arranged in the top end part of this driven plate 98A, engaged to the groove parts 30a; 30b of the copy cassette 14. Next the motor 94A is driven, by means of the wire 104A, the aforementioned guide roller 102A is rotated, thereby the top end part of the copy cassette 14 by means of the nip roller 106 inters between the light emission element 108 and the light receiving element 110. (refer to Fig. 1)

In this case, in the top end part of the copy cassette 14, the cassette discriminating part 29 is arranged which sets the discriminating mark of the read-out copy 29 set the discriminating mark of the read-out copy 28 held in the copy cassette 14 and the kind of the copy cassette 14. Accordingly the copy cassette supplying equipment 10 receives the light by the right receiving ele-

ment 110 by means of the cassette discriminating 29 outputted from the light emission element 108, light receiving element 110, the information of the copy cassette 14 can read out and record.

The information from the copy cassette 14 is read out, thereby the aforementioned copy cassette 14 is returned to the prescribed position of the stage part 86 under the driving function of the cassette carrying mechanism 90A, afterward the driving plate 98A, by the solenoid 96A, the driving plate 98A is rotated and moved by the solenoid 96A in the arrow mark B direction, and retires from the cage 76.

Next, the cage 76 moves in the arrow mark 2 direction by means of the worm gear 82 and the chain 84 under the driving functions, and at the time when the aforementioned copy cassette 14, and stops at the time when moving to the position corresponding to the cassette carrying mechanism 90B. There similar to the case of the cassette carrying mechanism 90A, the aforementioned cassette carrying mechanism 90B is driven, and the copy cassette 14 is carried out to the side of the supplying means 22 (referring to Fig. 1, Fig. 7). The cassette supplying means 22 drives the motor 118, and rotates the nip rollers 112, 114, by means of the cassette 22 drives the motor 118, and the copy cassette 14 is supplied to the picture image read-out equipment 20 by means of the communicating port 34.

The picture image read-out equipment 20 drives the carrying means 40 by detecting the copy cassette 14 by the inserting detecting means 36, and carries the aforementioned copy cassette 14 to the picture image read-out part 42. In this case the cassette discriminating means 38 reads out the information of the copy cassette 14. In the picture image read-out part 42, the light outputted from the light source 46 by means of the read-out copy 28 held in the copy cassette 14 is received by the light receiving element 48, and the picture image is read out.

In the mean time, in the above explanation, the copy cassette 14 is supplied from the cassette inserting port 56. In this case, after the cassette holding means 16 moves in the prescribed volume in the arrow mark 2 direction, supplied to the picture image read-out equipment 20. Accordingly to supply the copy cassette 14 to the picture image read-out equipment 20, the prescribed time is needed for the duration the copy cassette 14 is discriminated by the cassette discriminating means.

In this implemented example to this, by means of the formed cassette inserting part 66, the copy cassette 14 is supplied, the intended copy cassette 14 can be supplied in a short time to the picture image read-out equipment 20.

Namely for example, when the splitting work is conducted in case the copy cassette 14 is held in the cassette holding means 16, the door 64 is open, and made to the state of Fig. 1. In this case in the stage part 86 of the cassette holding means 16, the part corresponding to the cassette inserting port 66 is made vacant. The copy cassette 14 inserted from the cassette inserting port 66 is detected by the inserting detecting means 68, thereby the carry-in roller 72 is driven and supplied to the cassette holding means 16. When the aforementioned copy cassette 14 is supplied to the cassette holding means 16, the driving plate 98B composing the cassette carrying mechanism 90B rotates under the driving function of the cassette carrying mechanism 90B rotates under the driving function of the cassette carrying mechanism 90B in the arrow mark direction A. Next the motor 94B is rotated thereby the copy cassette 14 is supplied to the cassette supplying means 22. The cassette supplying means 22 is supplied to the picture image read out equipment 20 by means of the communicating part 34 by the nip rollers 112, 114 rotated by the motor 18. The copy cassette 14 supplied to the picture image read out equipment 20 similar to the case aforementioned carried to the picture image read-out part 42, the read-out of the picture image is carried out.

In the way such as above, the cassette inserting port 66 is positioned in the part corresponding to the communicating port 34 of the picture image read out equipment 20, thereby even if the splitting in is generated, the intended copy cassette 14 can be supplied to the picture image read out equipment 20 in the short time. And not just the splitting time, but the number of copy cassette 14 is small, the cassette inserting port 66 aforementioned is used for the fast supply of the number of copy cassette 14 can be supplied by using the cassette inserting port 66.

Rep. /

⑥日本国特許庁 (JP)

⑥特許出願公開

## ⑥公開特許公報 (A)

平4-3731

⑦Int. Cl. 6

B 63 H 1/28  
3/48  
G 03 B 27/82  
H 04 N 1/00

識別記号

3 2 2  
B  
1 0 8 C

序内整理番号

8308-3F  
9148-3F  
7159-2K  
7170-5C

⑥公開 平成4年(1992)1月8日

無変更請求 未請求 請求項の数 1 (全9頁)

## ⑦発明の名称 原稿カセット供給装置

⑦特 願 平2-105576

⑦出 願 平2(1990)4月20日

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## 明細書

## 給装置。

## 1. 発明の名称

原稿カセット供給装置

## 3. 発明の詳細な説明

## 【産業上の利用分野】

本発明は、画像読み取装置に対し、読み取原稿を保持した原稿カセットを供給する原稿カセット供給装置に関するものである。

## 2. 特許請求の範囲

(1) 画像読み取装置に対し、読み取原稿を保持した原稿カセットを供給する原稿カセット供給装置であって、

前記原稿カセットを収納する複数の段部を有し、前記段部の後退方向に移動可能なカセット保持手段と、

前記画像読み取装置と前記原稿カセット供給装置との連通する送込口に対応した位置に設けられ、前記段部に対して前記原稿カセットを供給するためのカセット插入口と、

前記カセット保持手段に収納された原稿カセットを前記送込口を介して前記画像読み取装置に供給するカセット供給手段と、

前記カセット供給手段に収納された原稿カセット

を備えることを特徴とする原稿カセット供給装置

## 【従来の技術】

印刷、製版の分野において、作業工程の合理化、画像品質の向上等を目的として原稿に記録された画像情報を電気的に処理し、フィルム原版を作成する画像走査読み取再生システムが用いられている。

この場合、当該システムを構成する画像読み取装置では、原稿カセットに位置決め収納された読み取原稿を読み取部まで搬送しつつ走査することにより画像情報を二次元的読み取りを行っている。

ところで、このような画像読み取装置には、大

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置に設置される原稿カセットの斜視図、  
第8図は、第1図に示す原稿カセット供給装置  
およびこれに接続される画像読み取装置の説明  
図、

第4図は、第1図に示す原稿カセット供給装置  
の構成斜視図、

第5図は、第1図に示す原稿カセット供給装置  
の内部構造斜視図、

第6図および第7図は、第1図に示す原稿カ  
セット供給装置におけるカセット搬送機構の平  
面説明図である。

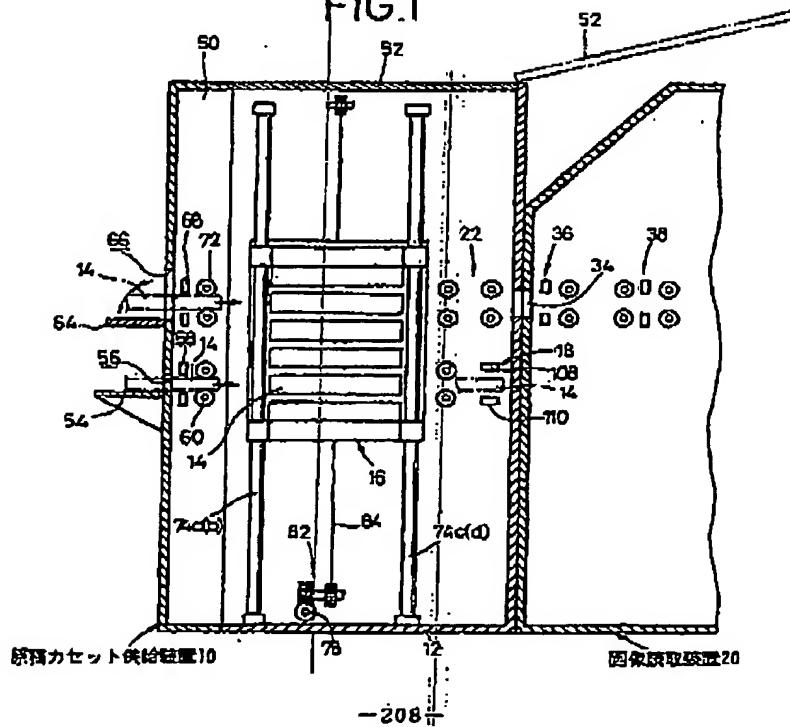
- 10...原稿カセット供給装置
- 14...原稿カセット
- 16...カセット保持手段
- 18...カセット搬送手段
- 20...画像読み取装置
- 22...カセット供給手段
- 28...読み取原稿
- 29...カセット差別部

- 7:6...ケージ
- 8:6...段部
- 9:DA、90B...カセット搬送機構

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同上 富士写真光学株式会社  
出願人代理人 代理士 千葉 剛



FIG.1



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FIG.2

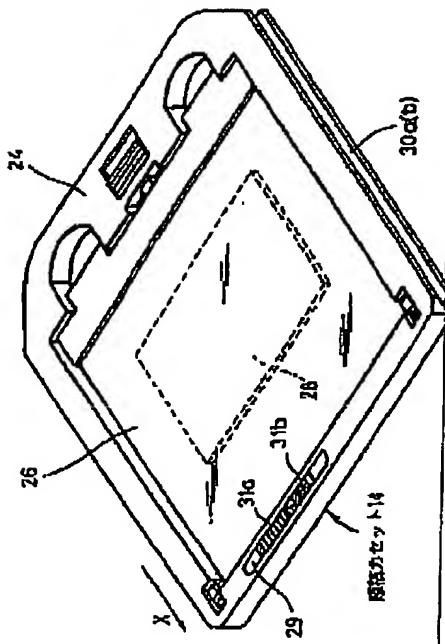


FIG.3

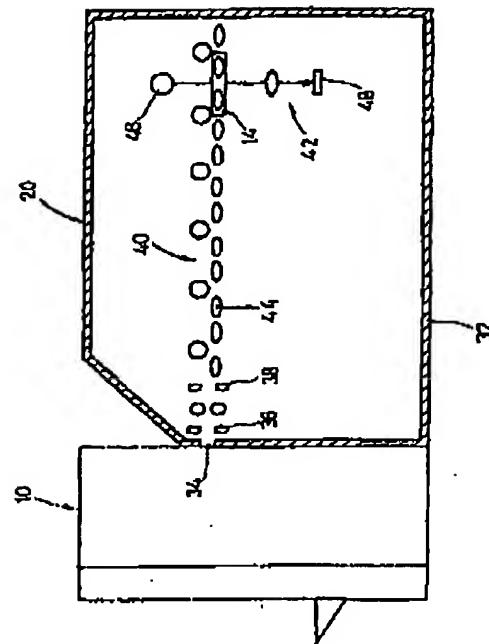
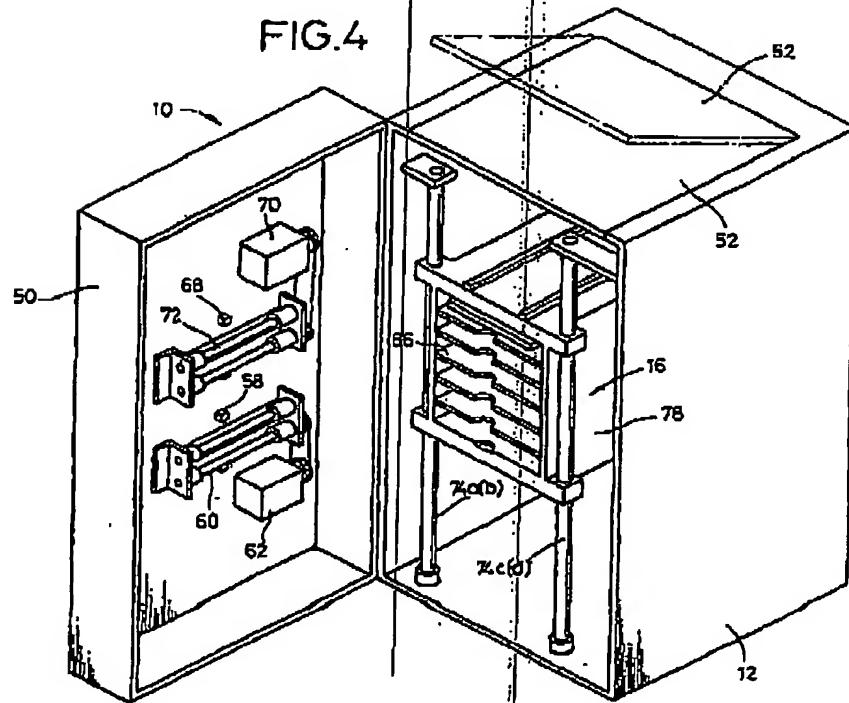
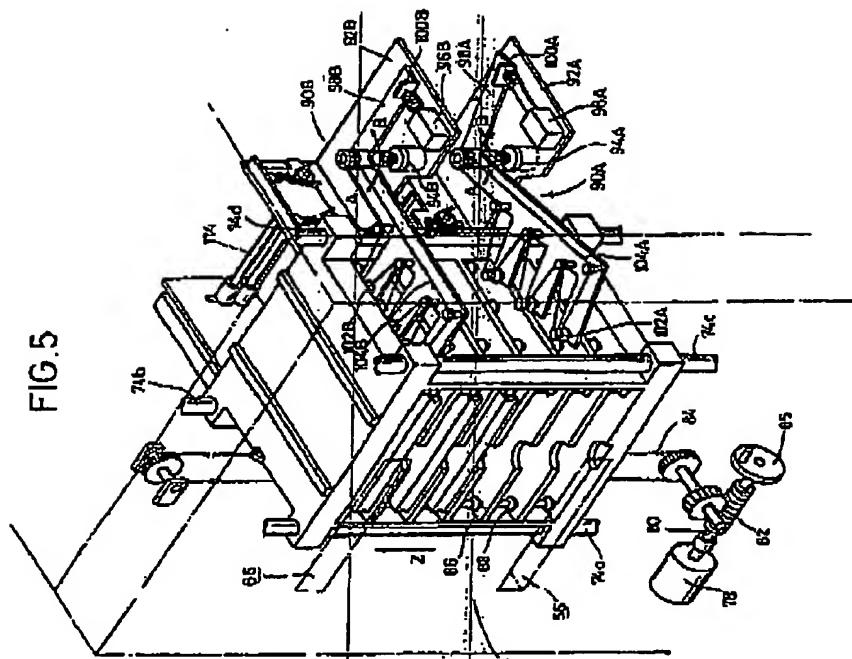


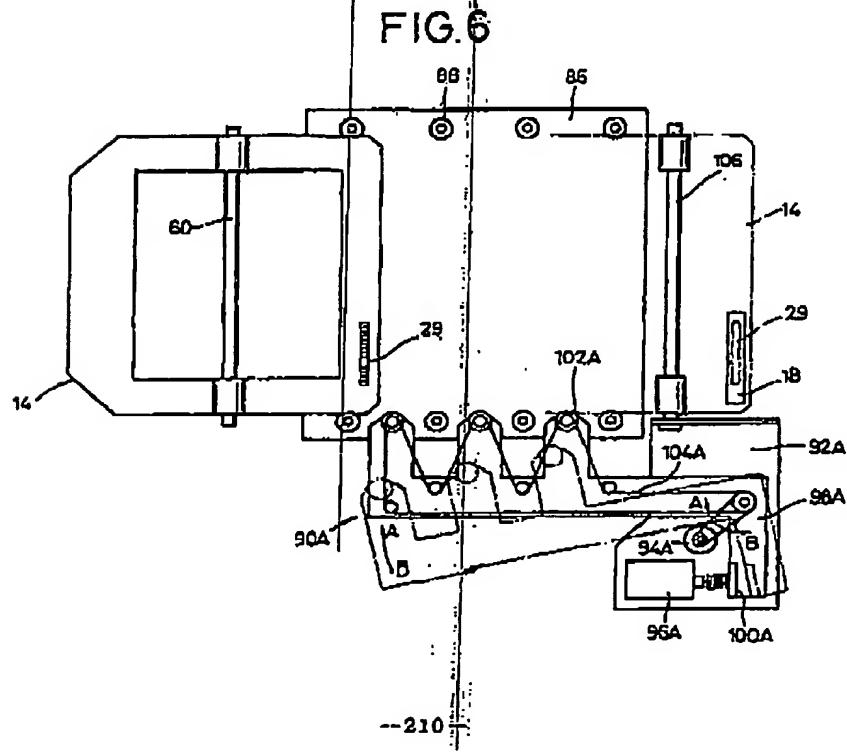
FIG.4



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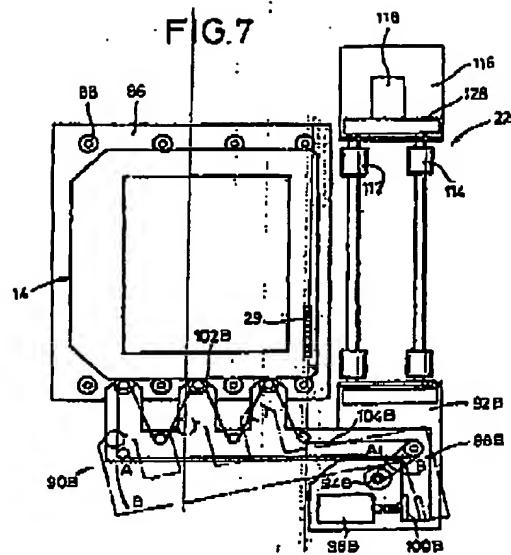


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